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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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The present Information Disclosure Statement is being filed prior to the receipt of a first Office Action on the merits; and hence, is believed to be timely-filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement; however, if any fees should be due, the Commissioner is hereby authorized to deduct said fees from the Deposit Account No. 01-2508/11792.0214.DVUS01.

The present application is a divisional of U.S. Serial No. 09/337,635, filed June 21, 1999, and is relied upon for an earlier filing date under 35 U.S.C. § 120. In accordance with Rule 37 C.F.R. § 1.98(d), copies of the listed documents are not enclosed as they have been previously cited by or submitted to the U.S. Patent and Trademark Office in prior applications U. S. Serial Nos. 09/337,635 or 08/980,071, both of which are relied upon for an earlier filing date under 35 U.S.C. § 120.

Respectfully submitted,



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Date: October 5, 2001

Form PTO-1449 (modified)	Atty. Docket No. MECO214/KAM	Serial No.
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	Applicant James A. Baum, Amy Jelen Gilmer, Anne-Marie Light Mettus	
	Filing Date: Concurrently Herewith	Group:
U.S. Patent Documents <i>See Page 1</i>	Foreign Patent Documents <i>See Page 1</i>	Other Art <i>See Page 2</i>

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U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	4,448,885	05/15/84	Schnepf <i>et al.</i>	435	253	
	A2	4,467,036	08/21/84	Schnepf <i>et al.</i>	435	317	
	A3	4,766,203	08/23/88	Krieg <i>et al.</i>	530	370	
	A4	4,797,279	01/10/89	Karamata <i>et al.</i>	424	93	
	A5	4,910,016	03/20/90	Gaertner <i>et al.</i>	424	93	
	A6	5,024,837	06/18/91	Donovan <i>et al.</i>	424	93	
	A7	5,126,133	06/30/92	Payne <i>et al.</i>	424	93	
	A8	5,188,960	02/23/93	Payne <i>et al.</i>	435	252.3	
	A9	5,322,687	06/21/94	Donovan <i>et al.</i>	424	93	
	A10	5,441,884	08/15/95	Baum	435	252.31	
	A11	5,500,365	03/19/96	Fischhoff <i>et al.</i>	435	240.4	
	A15	5,567,600	10/22/96	Adang <i>et al.</i>	536	23.71	
	A14	5,567,862	10/22/96	Adang <i>et al.</i>	800	205	
	A13	5,573,766	11/12/96	Blenk <i>et al.</i>	424	93.461	
	A12	5,589,382	12/31/96	Payne <i>et al.</i>	435	252.5	
	A11	5,659,123	08/19/97	Van Rie <i>et al.</i>	800	205	
	A12	6,033,874	03/07/00	Baum <i>et al.</i>	435	69.1	

Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1	WO88/09812	12/15/88	PCT			Abstract
	B2	WO91/16433	10/31/91	PCT			Yes

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	B3	WO93/03154	02/18/93	PCT			Yes
	B4	WO95/02058	01/19/95	PCT			Yes
	B5	WO95/06730	03/09/95	PCT			
	B6	0295156B1	12/14/88	Europe			Abstract
	B7	EP 0408403	01/16/91	Europe			
	B8	EP 0405810	01/02/91	Europe			
	B9	EP 0193259	03/09/86	Europe			

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

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	C1	Almond and Dean, "Suppression of Protein Structure Destabilizing Mutations in <i>Bacillus thuringiensis</i> Delta Endotoxins by Second Site Mutations," <i>Biochemistry</i> , 32:1040-1046, 1993.
	C2	Angsuthanasombat <i>et al.</i> , "Effects on Toxicity of Eliminating a Cleavage Site in a Predicted Interhelical Loop in <i>Bacillus thuringiensis</i> CryIVB δ -Endotoxin," <i>FEMS Microbiol. Lett.</i> , 111:255-262, 1993.
	C3	Aronson <i>et al.</i> , "Mutagenesis of Specificity and Toxicity Regions of a <i>Bacillus thuringiensis</i> Protoxin Gene," <i>Journal of Bacteriology</i> , 177(14):4059-4065, July 1995.
	C4	Baum, "TnpI Recombinase: Identification of Sites within Tn5401 Required for TnpI Binding and Site-Specific Recombination," <i>Journal of Bacteriology</i> , 177(14):4036-4042, July 1995.
	C5	Baum <i>et al.</i> , "Novel Cloning Vectors for <i>Bacillus thuringiensis</i> ," <i>Applied and Environmental Microbiology</i> , 56(11):3420-3428, November 1990.
	C6	Caramori <i>et al.</i> , "In vivo Generation of Hybrids Between Two <i>Bacillus thuringiensis</i> Insect-Toxin-Encoding Genes," <i>Gene</i> , 98:37-44, 1991.

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Exam. Init.	Ref. Des.	Citation
	C7	Chambers <i>et al.</i> , "Isolation and Characterization of a Novel Insecticidal Crystal Protein Gene from <i>Bacillus thuringiensis</i> subsp. <i>Aizawai</i> ," <i>Journal of Bacteriology</i> , 173(13):3966-3976, July 1991.
	C8	Chen <i>et al.</i> , "Site-directed Mutations in a Highly Conserved Region of <i>Bacillus thuringiensis</i> Delta-endotoxin Affect Inhibition of Short-circuit Current Across <i>Bombyx mori</i> Midguts," <i>Proc. Natl. Acad. Sci.</i> , 90:9041-9045, October 1993.
	C9	Chen <i>et al.</i> , "Mutations in Domain I of <i>Bacillus thuringiensis</i> δ -Endotoxin CryIAb Reduce the Irreversible Binding of Toxin to <i>Manduca sexta</i> Brush Border Membrane Vesicles," <i>J. Biol. Chem.</i> , 270(11):6412-6419, March 1995.
	C10	De Maagd <i>et al.</i> , "Domain III Substitution in <i>Bacillus thuringiensis</i> Delta-Endotoxin CryIA(b) Results in Superior Toxicity for <i>Spodoptera exigua</i> and Altered Membrane Protein Recognition," <i>Applied and Environmental Microbiology</i> , 62(5):1537-1543, May 1996.
	C11	Donovan <i>et al.</i> , "Amino Acid Sequence and Entomocidal Activity of the P2 Crystal Protein," <i>J. Biol. Chem.</i> , 263(1):561-567, January 1988.
	C12	English and Slatin, "Mode of Action of Delta-Endotoxins from <i>Bacillus thuringiensis</i> : A Comparison with Other Bacterial Toxins," <i>Insect Biochem. Molec. Biol.</i> , 22(1):1-7, 1992.
	C13	Gazit and Shai, "Structural and Functional Characterization of the $\alpha 5$ Segment of <i>Bacillus thuringiensis</i> δ -Endotoxin," <i>Biochemistry</i> , 32(13):3429-3436, 1993.
	C14	Gazit and Shai, "The Assembly and Organization of the $\alpha 5$ and $\alpha 7$ Helices from the Pore-forming Domain of <i>Bacillus thuringiensis</i> δ -Endotoxin," <i>J. Biol. Chem.</i> , 270(6):2571-2578, February 1995.
	C15	Ge <i>et al.</i> , "Functional Domains of <i>Bacillus thuringiensis</i> Insecticidal Crystal Proteins," <i>J. Biol. Chem.</i> , 266(27):17954-17958, September 1991.
	C16	Grochulski <i>et al.</i> , " <i>Bacillus thuringiensis</i> CryIA(a) Insecticidal Toxin: Crystal Structure and Channel Formation," <i>J. Mol. Biol.</i> , 254:447-464, 1995.
	C17	Hofte and Whiteley, "Insecticidal Crystal Proteins of <i>Bacillus thuringiensis</i> ," <i>Microbiological Review</i> , 53(2):242-255, June 1989.

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	C18	Hofte <i>et al.</i> , "Structural and functional analysis of a cloned delta endotoxin of <i>Bacillus thuringiensis berliner</i> 1715," <i>Eur. J. Biochem.</i> , 161:273-280, 1986.
	C19	Honée <i>et al.</i> , "Nucleotide sequence of crystal isolated from <i>B.thuringiensis</i> subspecies <i>entomocidus</i> 60.5 coding for a toxin highly active against <i>Spodoptera</i> species," <i>Nucleic Acids Research</i> , 16(13):6240, 1988.
	C20	Krieg <i>et al.</i> , " <i>Bacillus thuringiensis</i> var. <i>Tenebrionis</i> : ein neuer, gegenüber Larven von Coleopteren wirksamer Pathotyp," <i>Z. ang. Ent.</i> , 96:500-508, 1983.
	C21	Kwak <i>et al.</i> , "Exploration of Receptor Binding of <i>Bacillus thuringiensis</i> Toxins," <i>Mem Inst. Oswaldo</i> , 90(1):75-79, January/February 1995.
	C22	Lambert <i>et al.</i> , "A <i>Bacillus thuringiensis</i> Insecticidal Crystal Protein with a High Activity against Members of the Family Noctuidae," <i>Applied and Environmental Microbiology</i> , 62(1):80-86, January 1996.
	C23	Lee <i>et al.</i> , "Location of a <i>Bombyx mori</i> Receptor Binding Region on a <i>Bacillus thuringiensis</i> δ -Endotoxin," <i>J. Biol. Chem.</i> , 267(5):3115-3121, February 1992.
	C24	Lee <i>et al.</i> , "Domain III Exchanges of <i>Bacillus thuringiensis</i> CryIA Toxins Affect Binding to Different Gypsy Moth Midgut Receptors," <i>Biochemical And Biophysical Research Communications</i> , 216(1):306-312, November 1995.
	C25	Lu <i>et al.</i> , "Identification of Amino Acid Residues of <i>Bacillus thuringiensis</i> δ -Endotoxin CryIAa Associated with Membrane Binding and Toxicity to <i>Bombyx mori</i> ," <i>J. of Bacteriology</i> , 176(17):5554-5559, September 1994.
	C26	Mettus and Macaluso, "Expression of <i>Bacillus thuringiensis</i> δ -Endotoxin Genes during Vegetative Growth," <i>Applied and Environmental Microbiology</i> , 56(4):1128-1134, April 1990.
	C27	Rajamohan <i>et al.</i> , "Single Amino Acid Changes in Domain II of <i>Bacillus thuringiensis</i> CryIAb δ -Endotoxin Affect Irreversible Binding to <i>Manduca sexta</i> Midgut Membrane Vesicles," <i>J. of Bacteriology</i> , 177(9):2276-2282, May 1995.
	C28	Rajamohan <i>et al.</i> , "Role of Domain II, Loop 2 Residues of <i>Bacillus thuringiensis</i> CryIAb δ -Endotoxin in Reversible and Irreversible Binding to <i>Manduca sexta</i> and <i>Heliothis virescens</i> ," <i>J. of Biological Chemistry</i> , 271(5):2390-2396, February 1996.

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	C29	Sanchis <i>et al.</i> , "Multiplicity of δ -endotoxin genes with different insecticidal specificities in <i>Bacillus thuringiensis aizawai</i> 7.29," <i>Molecular Microbiology</i> , 2(3):393-404, 1988.
	C30	Sanchis <i>et al.</i> , "Nucleotide sequence and analysis of the N-terminal coding region of the <i>Spodoptera</i> -active δ -endotoxin gene of <i>Bacillus thuringiensis aizawai</i> 7.29," <i>Molecular Microbiology</i> , 3(2):229-238, 1989.
	C31	Smedley and Ellar, "Mutagenesis of three surface-exposed loops of a <i>Bacillus thuringiensis</i> insecticidal toxin reveals residues important for toxicity, receptor recognition and possibly membrane insertion," <i>Microbiology</i> , 142:1617-1624, 1996.
	C32	Smith <i>et al.</i> , "Mosquitocidal Activity of the CryIC δ -Endotoxin from <i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> ," <i>Applied and Environmental Microbiology</i> , 62(2):680-684, February 1996.
	C33	Smith and Ellar, "Mutagenesis of two surface-exposed loops of the <i>Bacillus thuringiensis</i> CryIC δ -endotoxin affects insecticidal specificity," <i>Biochem. J.</i> , 302:611-616, 1994.
	C34	von Tersch <i>et al.</i> , "Membrane-Permeabilizing Activities of <i>Bacillus thuringiensis</i> , Coleopteran-Active Toxin CryIIIB2 and CryIIIB2 Domain I Peptide," <i>Applied and Environmental Microbiology</i> , 60(10):3711-3717, October 1994.
	C35	Wolfersberger <i>et al.</i> , "Site-Directed Mutations in the Third Domain of <i>Bacillus thuringiensis</i> δ -Endotoxin CryIAa Affect Its Ability to Increase the Permeability of <i>Bombyx mori</i> Midgut Brush Border Membrane Vesicles," <i>Applied and Environmental Microbiology</i> , 62(1):279-282, January 1996.
	C36	Wu and Aronson, "Localized Mutagenesis Defines Regions of the <i>Bacillus thuringiensis</i> δ -Endotoxin Involved in Toxicity and Specificity," <i>J. of Biol. Chem.</i> , 267(4):2311-2317, February 1992.
	C37	Wu and Dean, "Functional Significance of Loops in The Receptor Binding Domain of <i>Bacillus thuringiensis</i> CryIIIA δ -Endotoxin," <i>J. Mol. Biol.</i> , 255:628-640, 1996.
	C38	Dean <i>et al.</i> , "Probing the mechanism of action of <i>Bacillus thuringiensis</i> insecticidal proteins by site-directed mutagenesis - a minireview," <i>Gene</i> , 179:111-117, 1996.
	C39	International Search Report dated April 21, 1998 (PCT/US97/22181)(MECO:206P).

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	C40	Nakamura <i>et al.</i> , "Insecticidal activity and processing in larval gut juices of genetically engineered 130-kDa proteins of <i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> ," <i>Biosci. Biotech. Biochem.</i> , 56(1):1-7, 1992.
	C41	Kalman <i>et al.</i> , "Cloning of a novel <i>CryIC</i> -type gene from a strain of <i>Bacillus thuringiensis</i> subsp. <i>galleriae</i> ," <i>Applied and Environmental Microbiology</i> , 59(4):1131-1137, 1993.
	C42	Li <i>et al.</i> , "Crystal structure of insecticidal δ -endotoxin from <i>Bacillus thuringiensis</i> at 2.5 Å resolution," <i>Nature</i> , 353:815-821, 1991.
	C43	Schnepf and Whiteley, "Cloning and expression of the <i>Bacillus thuringiensis</i> crystal protein gene in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , 78(5):2893-2897, 1981.
	C44	Schnepf <i>et al.</i> , "The amino acid sequence of a crystal protein from <i>Bacillus thuringiensis</i> deduced from the DNA base sequence," <i>J. Biol. Chem.</i> , 260(10):6264-6272, 1985.
	C45	Walters <i>et al.</i> , "Ion channel activity of n-terminal fragments from CryIA(c) delta-endotoxin," <i>Biochem. Biophys. Res. Comm.</i> , 196(2):921-926, 1993.

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